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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/744,000	12/24/2003	Sameh Rabie	16201ROUS01U	9424

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EXAMINER	
WASEL, MOHAMED A	

ART UNIT	PAPER NUMBER
2154	

NOTIFICATION DATE	DELIVERY MODE
04/17/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/744,000	RABIE ET AL.	
	Examiner	Art Unit	
	MOHAMED WASEL	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This action is responsive to amendment filed on December 21, 2007. Claims 1-40 have been amended. Claims 1-40 are pending and presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishwar et al, (Ishwar) US Patent Application Pub. No. 2004/0078469 in view of Haddock et al, (Haddock) US Patent Application Pub. No. 2004/0081093.

1. As per claim 1, Ishwar teaches a method for enabling multiple Quality of Service (QoS) support over Frame Relay (FR) and Ethernet networks, the method (**Paragraph(s) [0030]**) comprising the steps of:

identifying a packet according to a first network protocol for servicing (**Paragraph(s) [0029]**) and determining QoS (**Paragraph(s) [0004]**).

Ishwar fails to explicitly teach determining a QoS metric for the identified packet and based upon the determined QoS metric, servicing the identified packet for transmission in accordance with Frame Relay protocol.

However, Haddock discloses determining a QoS metric for the identified packet and based upon the determined QoS metric, servicing the identified packet for transmission in accordance with a second network protocol (**Paragraph(s) [0010], [0022], Abstract**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient transmission method of exchanging data over multiple networks with respect to network protocols.

2. As per claim 2, Ishwar fails to explicitly teach determining a QoS metric includes considering Ethernet information.

However, Haddock discloses determining a QoS metric includes considering Ethernet information (**Paragraph(s) [0013]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient way of analyzing packets to identify destination/client and apply the proper QoS.

3. As per claim 3, Ishwar teaches the method wherein the Ethernet information includes Ethernet port information (**Paragraph(s) [0014]**).

4. As per claim 4, Ishwar teaches the method wherein the Ethernet information includes virtual local area network identifier (VLAN ID) information (**Paragraph(s) [0029-0031]**).

5. As per claim 5, Ishwar teaches the method wherein the Ethernet information includes p-bits information (**Paragraph(s) [0029]**).

6. As per claim 6, Ishwar teaches the method as claimed in claim 5 wherein the Ethernet information further includes VLAN ID information (**Paragraph(s) [0029-0031]**).

7. As per claim 7, Ishwar fails to explicitly teach wherein the step of servicing further includes assigning drop precedence to the packet based on the p-bits information.

However, Haddock discloses wherein the step of servicing further includes assigning drop precedence to the packet based on the p-bits information (**Paragraph(s) [0043], [0061]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides better network performance and insure QoS's are applied to various traffic classes based on a client subscription.

8. As per claim 8, Ishwar fails to explicitly teach a method wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information.

However, Haddock discloses a method wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information (**Paragraph(s) [0041]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it allows different layers to add features/functionality to data sent over a data link layer protocol by supporting encapsulation.

9. As per claim 9, Ishwar teaches the method wherein the ULP information includes Internet Protocol (IP) packet information (**Paragraph(s) [0028]**).

10. As per claim 10, Ishwar fails to explicitly teach the method wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information.

However, Haddock discloses the method wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information (**Paragraph(s) [0035]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient way of classifying different data packets by using DSCP field in the header of an IP packet.

11. As per claim 11, Ishwar teaches the method wherein the IP packet information further includes VLAN ID information (**Paragraph(s) [0003], [0028]**).

12. As per claim 12, Ishwar fails to explicitly teach the method wherein the step of servicing further includes assigning drop precedence to the packet the based on the DSCP bit information.

However, Haddock discloses a method wherein the step of servicing further includes assigning drop precedence to the packet the based on the DSCP bit information (**Paragraph(s) [0035], [0043], [0061]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides a better way of prioritizing network traffic based on client subscription.

13. Claim 13 is rejected under the same rationale as claim 1.

14. As per claim 14, Ishwar teaches the method wherein the FR information includes data link connection information (**Paragraph(s) [0030]**).

15. As per claim 15, Ishwar fails to explicitly teach a method wherein the step of servicing further includes assigning drop precedence to the packet based on discard eligible (DE) bit information.

However, Haddock discloses a method wherein the step of servicing further includes assigning drop precedence to the packet based on discard eligible (DE) bit information (**Paragraph(s) [0043]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides a better way of prioritizing network traffic based on client subscription.

16. As per claim 16, Ishwar fails to explicitly teach the method wherein the step of servicing includes mapping the packet to a Frame Relay Data Link (DLC) and scheduling the packet for transmission according to a sub-connection scheduling scheme.

However, Haddock discloses the method wherein the step of servicing includes mapping the packet to a Frame Relay Data Link (DLC) and scheduling the packet for transmission according to a sub-connection scheduling scheme (**Paragraph(s) [0022], Abstract**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides an efficient mechanism of routing network traffic.

17. Claim 17 is rejected under the same rationale as claim 16.

18. As per claim 18, Ishwar fails to explicitly teach the method wherein the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme.

However, Haddock discloses a method wherein the first network protocol is FR and the second network protocol is Ethernet and the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme (**Paragraph(s) [0022], Abstract**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Ishwar and Haddock because it provides a better way of prioritizing network traffic based on client subscription.

19. Claim 19 is rejected under the same rationale as claim 18.

20. The set of claims 20-38 are rejected under the same rationale as the set of claims 1-19.

21. As per claim 39, Ishwar teaches the system wherein the system is located at an edge of a core network (**Paragraph(s) [0030]**).

22. As per claim 40, Ishwar teaches the system wherein the system is located in a user element (**Paragraph(s) [0030]**).

Response to Argument(s)

Applicant's argument(s) filed on December 21, 2007 have been fully considered but they are not persuasive. Therefore, rejection is maintained.

- In the remarks, the Applicant argues in substance that:
  a) Ishwar and Haddock fails to teach identifying a packet according to an Ethernet protocol for servicing, determining a QoS metric for the identified packet and based upon the determined QoS metric, servicing the identified packet for transmission in accordance with a Frame Relay protocol as recited in the context of the independent claims.
  b) Ishwar and Haddock fail to address how quality of service may be implemented across Fame Relay and Ethernet networks.
- In response to argument(s):
  a) Examiner respectively disagrees. Applicant is reminded that claims must be given their broadest reasonable interpretation. Ishwar discloses many techniques that can be used to map incoming traffic such as mapping said incoming traffic to a VLAN ID by using port-based VLAN mapping, MAC address-based VLAN mapping and protocol-based VLAN mapping (Paragraph [0029]). To guarantee Quality of Service (QoS), a need for advanced services can be provided by a network that utilizes a Layer 2 technology such as ATM, SONET, or Frame Relay (Paragraph [0004]). To support the shortcoming of Ishwar's teaching, Haddock discloses providing Quality of Service (QoS) in a network employing a non-deterministic access protocol such as an Ethernet network, that not only has the ability to prioritize and service different traffic classes, but additionally provides bandwidth management and guarantees a quantifiable measure of service for packets associated with a particular traffic class (Paragraph [0010]). In further details, Haddock discloses a number of QoS queues may

be provided at each port of a packet forwarding device, such as a Local Area Network (LAN) switch. Based upon a set of QoS parameters (metrics), various types of traffic can be distinguished and associated with particular QoS queues (Paragraph [0022]. Since Ishwar discloses providing advanced services by networks that utilizes layer 2 technology such as Frame Relay and haddock discloses support for a QoS in an Ethernet network, then the combined teachings of Ishwar and Haddock meet the scope of the claimed limitations as currently presented. Examiner believes that amendment to the claims to explicitly distinguish the claimed subject matter would clearly define the scope of the claimed invention and possibly overcome art in record.

b) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *"how quality of service may be implemented across Fame Relay and Ethernet networks"*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Wasel whose telephone number is (571) 272-2669. The examiner can normally be reached on Mon-Fri (8:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohamed Wasel/
Patent Examiner
April 13, 2008

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154